Datasheet Brief
KTZ8812

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Programmable Dual Output Power Supply

Features

- Input voltage range (2.7V to 5.5V)
- Dual output regulator with single inductor
- High efficiency above 85%
- Charge pump with PFM mode at light load
- Programmable output voltages
- Positive output voltage range
  - ▸ +4.0V to +6.3V (100mV/step)
- Negative output voltage range
  - ▸ -4.0V to -6.3V (100mV/step)
- Programmable regulator offset voltage
- 1.0% output voltage accuracy
- Output current up to +200mA, -150mA
- Programmable active discharge
- I²C compatible interface
- 1 µA shutdown supply current
- Pb-free WLCSP-15 package
- -40°C to +85°C Temperature Range

Applications

- Smartphone or Tablet TFT-LCD
- Operational Amplifiers
- Audio Amplifier Power
- Digital to Analog converters
- General Dual Power Supply Applications

Brief Description

The KTZ8812 is a dual output power supply IC used in portable appliances where both a positive and negative supply is required. The positive and negative output rails provide bias supplies for TFT LCD panels, OPA, Audio Amplifiers, DAC etc. The device only requires a single inductor, thereby minimising the total PCB area.

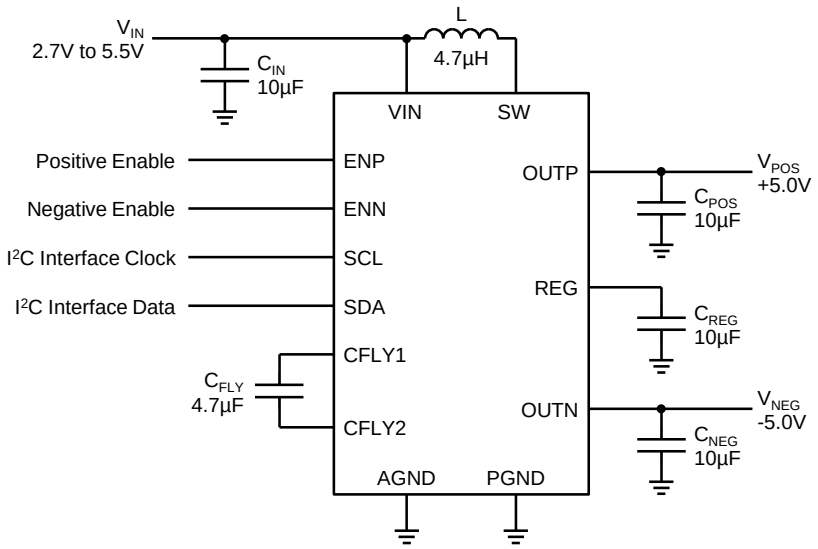
It features an integrated step-up DC-DC converter with input voltage range from 2.7V to 5.5V. An LDO and charge pump generate dual regulated outputs, whose voltages can be programmed via an I²C compatible interface. Optimized step-up, LDO and charge pump converters maximize conversion efficiency, exceeding 85%.

KTZ8812 integrates all compensation and soft-start circuitry, which results in a simpler and smaller solution with much fewer external components. High switching frequency (1.8MHz) allows the use of a smaller inductor and capacitor to further reduce the solution size.

The I²C compatible interface allows control of the positive and negative outputs from +4.0V to +6.3V and from -4.0V to -6.3V, respectively, as well as programming additional registers on the device.

KTZ8812 is available in a RoHS compliant 15-bump 2.2mm x 1.45mm x 0.62mm WLCSP.

Typical Application



Ordering Information

Part Number	Marking[1]	I²C Device Address	V_{POS} Default Setting	V_{NEG} Default Setting	Operating Temperature	MSL	Package
KTZ8812EUO-TR	IRYYZZ	3Eh	+5.0V	-5.0V	-40°C to +85°C	Level 1	WLCSP-15
KTZ8812BEUO-TR	MEYYZZ	4Eh	+5.0V	-5.0V	-40°C to +85°C	Level 1	WLCSP-15

1. “YYZZ” is the date code and assembly code.